



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,904	03/05/2002	John D. Boardman	064747,0961	9395
5073	7590	11/04/2003	EXAMINER	
LE, QUE TAN				
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/091,904	BOARDMAN ET AL	
	Examiner	Art Unit	
	Que T. Le	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-7, 15-20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: |

This is in response to Applicants' Request for Continued Examination (RCE) filed September 29, 2003.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Maslowski et al 3,823,276.

Maslowski et al disclose an optical data recording and reproducing system comprising: a curved writing surface (2); a rotatable shaft (5) having a first reflective surface, the curved writing surface is translating in at least one direction relative to the reflective surface; a translator or translational stage (1, 24) coupled to the curved writing surface for causing the translation of the curved writing surface; a light source (21) for emitting a beam of light directed to the reflective surface for reflection to the curved writing surface; and a reflecting mirror arrangement (16, Fig. 4B) having a plurality of faces, each disposed at different angles with respect to a central axis for reflecting a plurality of light beams parallel to an optical axis. The first reflective surface is coupled at 45 degrees with respect to the central axis of the shaft.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6, 7, 15-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maslowski et al 3,823,276.

With respect to claim 2, although Maslowski et al fail to specify the type of the shaft, selecting the use of an available known such as an air-bearing supporting shaft in a scanning system would have been obvious to one of ordinary skill in the art. It would have been obvious to modify Maslowski et al accordingly in order to provide a better rotatable element for the scanning operation of the system.

With respect to claim 6, although Maslowski et al lack an inclusion of continuously rotation, a setting and/or a specific rotating cycle (direction) of the shaft as claimed, selecting a particular rotation operation of a rotatable shaft in a scanning system in order to provide an desired scanning performance depend upon a selected scanned object and/or configuration of the recording surface. It would have been obvious to one of ordinary skill in the scanning art at the time of the invention to modify Maslowski et al accordingly in order to provide more accurate scanning performances of the system. Selecting a galvanometer and/or a motor or any available rotating device for the rotation of the shaft would have been a mere matter of obvious design choice involves only routine skill in the art.

Regarding claim 7, although Maslowski et al lack an inclusion of a pentaprism for bending the light beam, the use of an optics element for directing/redirecting light beam(s) in an optical system would have been obvious to one of ordinary skill in the art.

It would have been obvious to modify Maslowski et al accordingly in order to provide a more control to the scanning operation of the system.

With respect to claims 15-19, although Maslowski et al fail to disclose a plurality of light sources for providing a plurality of light beams, the use of a single or a plural light sources for providing a plurality of light beams would have been obvious to one of ordinary skill in the optics art in order to provide a compact optics design for the system. It would have been obvious to modify the proposed system of Maslowski et al, discussed above, accordingly in order to provide a more convenience in aligning the optics components of the system. The inclusion of a line start detector and its operation in an optical scanning, recording and/or reproducing system would have been obvious to one of ordinary skill in the art in order to provide a more control to the operation/performance of the light beam. It would have also been obvious to modify Maslowski et al accordingly in order to provide amore reliable performance of the system.

Claims 8-14 and 21 are allowable over the prior art of record because the prior art fails to teach an apparatus for scanning a beam of light in a digital image recorder, among other features, comprising a translational cylinder, slidably coupled to a translation stage, having an interior surface with a curved writing platen and being translating in at least one direction relative to a first reflective surface of a rotatable shaft, wherein the translation stage causes the translation of the translational cylinder.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

l) Fukui 4,260,997 discloses an image recording system having a light deflector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Que T. Le whose telephone number is (703) 308-4830.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Que T Le
Primary Examiner
Art Unit 2878